REMARKS

Applicant has carefully reviewed and considered the office action mailed on February 27, 2004, and the references cited therewith. Claims 1-45 are pending in the application and presently stand rejected under 35 U.S.C. § 102(e). All the rejections are traversed and reconsideration is respectfully requested. No amendments to the claims have been entered herein.

Information Disclosure Statement

Applicant submitted a Supplemental Information Disclosure Statement and a 1449 Form on March 12, 2002 and May 24, 2002. Applicant respectfully requests that initialed copies of the 1449 Forms be returned to Applicants' Representatives to indicate that the cited references have been considered by the Examiner.

§102 Rejection of the Claims

In the Office Action, claims 1-45 were rejected under 35 U.S.C. § 102(e) as being anticipated by Cone (U.S. Patent No. 5,850,222). Applicant does not believe any of the subject matters recited by claims 1-45 are taught or suggested by Cone and generally reiterates the remarks made previously in responding to the Office Action mailed on August 1, 2001. In that Office Action, claims 1-45 were rejected under 35 U.S.C. § 103 as being unpatentable over the very same Cone reference, which rejections were subsequently withdrawn in the Notice of Allowance mailed on January 14, 2002. In giving the reasons for allowance in the Detailed Action accompanying the Notice of Allowance, the examiner stated the following on page 2:

> The present invention relates in general to displaying selected garments on a computer-simulated mannequin. The closest prior art, Cone (US Patent No. 5,850,222) teaches a similar system, which also deals with displaying a graphic image of a person modeling a garment. Cone teaches a virtual dressing room system defining a three-dimensional shape of the human body wearing particular garment(s). However, Cone fails to teach the step of simulating draping and collision of the garment with the mannequin within the simulation scene to generate a three-dimensional rendering frame of the mannequin wearing the garment and the constraining portions of the garment to reside within or outside of particular shells defined around the mannequin in the rendering frame. Furthermore, Cone fails to disclose or suggest a compositing rule

interpreter for displaying the two-dimensional images of user-selected garments and of a selected mannequin in a layered order dictated by compositing rules. The Examiner searching the above limitations, in combination with the other elements of the claims, were not disclosed by, would not have been obvious over, nor would have been fairly suggested.

In view of the remarks made by the examiner as quoted above, applicants are surprised to now receive an office action which rejects the same claims as being anticipated by the Cone reference. In order for a claim to be anticipated by a reference under section 102, the reference must teach each and every element of the claim. None of the pending claims are so anticipated by the Cone reference. The arguments made in the present Office Action in support of each of the rejections, each of which applicant believes to be without merit, are addressed below. Also, the pending claims recite numerous other limitations which were not mentioned in the Office Action. Applicants assert that those limitations are not taught by Cone as well.

Claims 1, 38, and 44

The Office Action states that Cone teaches a method for producing an image of a computer-simulated mannequin wearing a garment as defined by selected mannequin and garment parameter values comprising generating objects corresponding to a representative mannequin and a garment placed in a simulation scene within a three-dimensional modeling environment (col. 3, lines 41-58). This is incorrect as Cone discusses neither the representation of garments as objects in a three-dimensional modeling environment nor simulation scenes within a three-dimensional modeling environment. Cone nowhere discusses a garment being represented as a three-dimensional object in a three dimensional modeling environment. At col. 3, lines 41-43, Cone states that "the "VDRS represents the person's body in three dimensions and the garments in two dimensions." At col. 3, lines 43-47, Cone goes on to say that the "VDRS two-dimensional image of garment is preferably generated by digitizing images of a standard mannequin with a standard figure wearing the garment." Although the system of Cone does represent a human body as a three-dimensional object, neither the human body nor the garment are ever placed in a simulation scene where multiple frames are generated as the simulation proceeds.

The Office Action states that Cone teaches simulating draping and collision of the garment with the mannequin within the simulation scene to generate a three-dimensional rendering frame of the mannequin wearing the garment (col. 6, line 32 to col. 7, line 16). As noted above, the system of Cone does not utilize a simulation scene as that term is understood in the art and used in the specification. Also, nowhere in Cone is a three-dimensional rendering frame of a mannequin wearing a garment discussed as garments are only represented as two-dimensional images. The office action also states that the "step of draping and collision of the garment is disclosed by Cone with VDRS tailoring method." Draping and collision of the garment within a simulation scene refers to simulating the deformations of the garment as it collides with the mannequin. The VDRS tailoring method, where the two-dimensional garment image is scaled to fit the body, is not a draping and collision simulation.

The Office Action states that Cone teaches constraining portions of the garment to reside within or outside of particular shells defined around the mannequin in the rendering frame (col. 7, lines 19 to col. 8, line 53), and rendering an image from the rendering frame (col.7, lines 18-30). As noted above, the Cone system does not utilize a three-dimensional rendering frame containing a three-dimensional representation of the garment and obviously does not discuss rendering an image from such a rendering frame. The shells referred to in the claims and specification constrain portions of a garment within a three-dimensional simulation scene as a draping and collision simulation proceeds in order to mimic the collisions that would occur were another garment to be placed in the simulation scene. Nothing in Cone is discussed that is even remotely related to this concept.

Claims 2, 35, and 43

With respect to claims 2, 35, and 43, the Office Action states that Cone "discloses the rendered image is used to form a visual image on a computer display device." For the reasons stated above, Cone does not disclose the rendering of an image from a rendering frame generated as recited by the steps of claim 1 to form a visual image on a computer display device.

Claims 3-4, 6-9, 13, 30-31, 33, and 36

Regarding claims 3-4, 6-9, 13, 30-31, 33, and 36, the Office Action states that Cone discloses generating rendering frames containing mannequin or garment objects as defined by selected parameter values by shape blending corresponding objects of previously generated rendering frames (col. 9. line 47 to col. 11, line 29). Shape blending, as that term is used in the specification, refers to a technique used to change mannequin or garment dimensions by changing the dimension parameters in a previously generated rendering frame and then performing a partial collision and draping re-simulation. Cone does not deal with collision and draping simulation and discusses nothing related to shape blending.

Claims 5, 23, 42 and 45

Regarding claims 5, 23, 42 and 45, the Office Action states that Cone discloses the two dimensional images are rendered from a rendering frame using a plurality of camera positions (col. 6, lines 45-57). In other words, Cone teaches image is created by taking a photograph of the garment as it is worn by the mannequin and then digitizing the photograph. As discussed above, Cone does not teach a three-dimensional rendering frame containing a mannequin wearing a garment from which a two-dimensional image can be rendered and does not teach rendering such an image using a plurality of camera positions. The "camera" referred to here is, of course, not a real camera and refers only to a viewing position for rendering the image from the three-dimensional rendering frame.

Claims 10-12 and 39

With respect to claims 10-12 and 39, the Office Action states that Cone "discloses the separate rendering frames are combined into a composite two-dimensional image using Z-coordinates of the objects." Cone does not discuss combining separate rendering frames into a composite two-dimensional image.

Claims 14-15

With respect to claims 14-15, the Office Action states that Cone "discloses a network and a processor-executable instructions." Cone does not disclose processor-executable instructions

for performing the method of claim 1 as recited by claim 15. Applicant can find nothing in the Cone reference having anything to do with networks.

Claims 16, 19, 29, and 32

Regarding claims 16, 19, 29, and 32, the Office Action states that the limitations of claims 16, 19, 29, and 32 are analyzed as discussed with respect to claim 1 above except for generating rendering frames containing mannequin or garment objects as defined by selected parameter values by shape blending corresponding objects of previously generated rendering frames. Cone teaches the claimed limitations (col. 9, line 47 to col. 11, line 29) when he discloses scale factor to shape the person's body. As discussed above, Cone does not teach anything related to shape blending.

Claims 17-1 8, 20-22, 24-28, 37, and 40-41

Regarding claims 17-1 8, 20-22, 24-28, 37, and 40-41, the Office Action states that Cone discloses a plurality of garment panels that are connected together during the draping and collision simulation and further wherein the garment parameters include panel dimensions (col. 5, lines 15 to col. 7, line 16). Cone discusses neither a draping and collision simulation nor a plurality of garment panels which are connected together during such a simulation.

Claim 34

Regarding claim 34, the Office Action states that the limitations of claim 34 are analyzed as discussed with respect to claim 1. above except for a user interface and a repository. The Office Action then states that Cone teaches the claimed limitations (col. 6, lines 45-61 ; col. 1, lines 49-65) when he discloses a user (e.g., a tailor) specifies the location of the garment control points on the garments, the alignment of these garment control points with the body control points, and the attributes of the garment control points. As for a repository, Cone discloses the computer system thus has a repository. Among other things, Cone does not discuss a compositing rule interpreter for displaying the two-dimensional images of user-selected garments and of a selected mannequin in a layered order dictated by compositing rules as recited by claim 34.

Conclusion

In view of the foregoing remarks, Applicant believes the claims are in condition for allowance and respectfully requests such action. The Examiner is invited to telephone the below-signed attorney at (847) 432-7302 to discuss any questions which may remain with respect to the present application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.
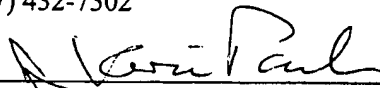
Respectfully submitted,

CARLOS SALDANHA ET AL.

By their Representatives,

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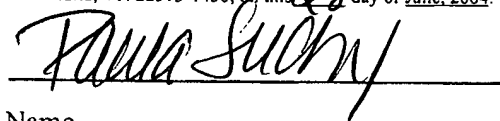P.O. Box 2938
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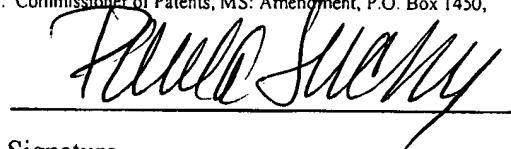   Reg. No. 33,024

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, MS: Amendment, P.O. Box 1450, Alexandria, VA 22313-1450, on this 28 day of June, 2004.

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